

REMARKS

The Office Action dated March 29, 2005 has been carefully reviewed, together with the prior art cited in the rejection of the claims. For the reasons set forth below, it is believed that the claims are patentable over the cited prior art. Allowance of the application is respectfully requested.

The Examiner is complimented on the quality of examination of the captioned application.

Extension of Time

Enclosed herewith is a request for a first one-month extension of time in which to file this Amendment and Response. Also enclosed is a check in the amount of \$120 for the one-month extension.

Allowed Claims

The Examiner has allowed claims 21-24. Allowance of such claims by the Examiner is appreciated.

The Drawings

Figures 2-5 have been objected to as being reproductions of photographs. Enclosed herewith are formal drawings of such figures. The objection to these drawing figures is believed to be overcome.

Since the photographic drawings of Figs. 2-5 were filed on four sheets, and the formal drawings of these figures are now on two sheets, submitted herewith is a Letter to the Official Draftsperson for

approval of the renumbering of the remaining drawing sheets.

Claim Objections

Claim 4 is objected to as the terms “forward signal” and “reverse signal” do not have a proper antecedent basis. Claim 1 and dependent claim 4 have been amended to overcome the objection.

Rejections Under 35 U.S.C. § 112

Claims 1-12 have been rejected as being indefinite.

Claim 1 is rejected as there is no structure or circuit recited for producing the frame of bits. Previously, claim 1 specified that the “modulator” modulated the carrier with a frame of bits. Nevertheless, claim 1 has been amended to specify a programmed processor that modulates the carrier to produce the frame of bits.

Claim 1 has also been rejected as the term “type” renders the claim indefinite. The word “type” has been deleted from claim 1.

With the foregoing amendments, claim 1 is believed to fully comply with section 112 of the patent statute.

Claim 9 has been rejected as such claim calls for switches, and claim 1 from which it depends does not recite any switches. Claim 1 has been amended to now specify “switches,” and claim 9 has been amended to specify the nature of such switches in claim 1.

With the foregoing amendments, claim 9 is believed to fully comply with section 112 of the patent statute.

Rejections Under 35 U.S.C. § 102 and 103

Claims 1 and 4 are rejected as being identically disclosed in U.S. Pat. No. 3,793,636 by Clark. The Clark patent reference discloses a data link control apparatus for converting analog voltages from a plurality of potentiometers (col. 3, lines 49-55) to corresponding digital signals to provide a continuous and proportional control of electrohydraulic servovalves.

Claim 1 has been amended to specify that the remote control system is for controlling a winch. Claim 1 has also been amended to specify that the remote control includes switches, where the In and Out switches provide respective In and Out signals only for as long as such switches are manually activated. This is in contrast to the Clark apparatus, which uses potentiometers that remain in the last set position without any continuous manual activation to provide corresponding output signals. In other words, the operator can rotate or otherwise set the potentiometers in a desired position, remove any further manual involvement, and the system continues to transmit the setting of the potentiometers as they are presently set.

Claim 1 has been further amended to specify that the processor is adapted for receiving an On/Off signal manually input by the user for placing the processor in a sleep mode to thereby conserve power to the remote control unit. In connection with this limitation appearing in other claims, the Examiner has cited Eder patent reference. However, in the Eder patent, power to the transmitter is automatically turned off after a period of five minutes, provided no data has been input (col. 6, lines 26-30). There are no provisions in Eder to place the processor in a sleep mode by the use of manual inputs from the user.

Lastly, claim 1 has been amended to specify that the processor is responsive to the release of either of the switches producing In and Out signals, for automatically generating a signal for stopping the winch. In connection with this limitation in other claims, the Examiner has cited the Clark patent for teaching the use of a zero control command modulated on a carrier for signaling zero current in the apparatus to be controlled. The Examiner concedes that the Clark patent does not teach the release of a switch for generating this signal, but relies on the Dilks reference for such teaching. It is believed that the teachings of the Clark patent cannot be combined with those of the Dilks patent in the manner suggested in the Office Action.

The Clark patent reference teaches a nonconductive data link control that provides proportional, or variable control. A number of potentiometers provide an analog voltage or current to an analog-to-digital converter. The digital signals are modulated on a carrier and transmitted to a remote location where the digital signals are converted back to corresponding analog signals to provide proportional control of the equipment. Importantly, the Clark reference teaches against the use of on/off switches, but rather teaches the specifics of a proportional control system. See column 1, lines 27-31 where it is stated:

“The purpose of the present invention is to provide substantially proportional control, *as opposed to on-off control*, by means of a nonconductive data link between a command location and a remote response location.”
(Emphasis added)

Accordingly, one skilled in the art would not combine the teachings of the Clark reference with other references (such as Dilks) where on-off switches are employed, as such type of switch does not provide proportional control.

The Dilks reference discloses the use of a hand-held switch mechanism connected to the winch by power cables. The hand-held unit includes power contacts actuated by push buttons to control

power to the winch in one direction, or in the other direction. The power control unit includes two push button switches, one for forward and the other for reverse. Both push button switches are spring biased so that when neither is pushed, the contacts are open and no power is coupled to the winch. As such, a prima facie case of anticipation or obviousness has not been established.

Claim 2 has been amended to specify a wireless receiver and antenna adapted for mounting to a vehicle, and a winch adapted for mounting to a vehicle. Such a combination, together with the apparatus of claim 1, is not made obvious by the cited prior art.

Claim 3 is patentable over the cited prior art. Claim 3 specifies that the various commands occupy the same bit positions in the control field. This contrasts with the Clark teachings where the forward/reverse signals occupy the sign field of bit 4, and the bit positions 5-8 hold the bits representative of the proportional control.

Claims 4-5 are patentable for the same reasons set forth above in connection with claim 1.

Claim 6 is patentable, as one skilled in the art would not refer to the electronic game field (Eder) to find solutions to problems with remote control devices for controlling winches, as claimed.

Claim 7 is patentable for the same reasons as claim 6.

Claim 8 has been rejected as being obvious over Clark and Eder, but there is no suggestion in such references of having to press an on/off switch for a specified period of time (using a timer) before activating and deactivating the wireless control system. As such, claim 8 is patentable in its own right over the cited references.

Claim 9 is patentable over the prior art of record, as there is no suggestion of such an arrangement of switches for controlling a winch.

Claim 10 has been canceled.

Claim 11 is patentable over the cited prior art of record, including the Clark reference. The Clark reference does refer to the use of a nonconductive data link incorporating safeguards, but such statement relied upon by the Examiner does not suggest the duplicate sending of a stop signal based on the release of the In and Out switches. As noted above, the Clark reference teaches against the use of switches, but rather teaches a system providing proportional control.

Claim 12 is believed to be patentable for the same reasons set forth above in connection with claim 1.

Claims 13-20 have been canceled.

Claims 21-24 have been allowed.

New Claims

Claims 25-31 have been added to the application. Because of the cancellation of various claims, no new fee is required for the filing of the new claims. Claims 25-31 are believed to be patentable for many of the same reasons noted by the Examiner in connection with claim 21.